### Energy Research in Exeter (Streatham)

- Research in tidal and offshore wind, simulation and optimisation, Energy Harvesting, Wood Combustion, Materials Engineering
- CDT's in Metamaterials, Sustainable Materials and Manufacture
- Centre for Energy and Environment





# **Tidal Turbines**

EPSRC project on estuarine tidal turbine arrays and Optimisation – novel cross-flow design.

(Belmont, Djordjevic, Tabor)







www.exeter.ac.uk

## **Offshore Wind**

Exeter CFD group contribution to RESIN project

Simulation of floating offshore wind turbines (S. China Sea)



#### Also linked to CCP-WSI



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www.exeter.ac.uk

# Wood Log Combustion

Work with Hunter Stoves, BioEnergy2020+ on domestic logburning stoves

(Tabor, Smith)

Working to meet new emissions requirements (2022) using novel stov designs

Developing computational simulation methods for combustion modelling.









# **Energy Harvesting**



- Power management
- Wireless sensing
- Modelling and simulation Integration and char sat

# Materials for Energy Applications

Thermal energy storage at Streatham

Metamaterials for energy generation and storage application

Graphene for photovoltaics and other energy applications

CDT's in Metamaterials, Sustainable Materials and Manufacture



